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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/086,150 10/22/2001		Robert William Bruce	13DV13861	4142		
31316 7	590 01/28/2004	EXAMINER				
MCNEES, WALLACE & NURICK 100 PINE STREET BOX 1166 HARRISBURG, PA 17108			MCNEIL, JENNIFER C			
			ART UNIT	PAPER NUMBER		
			1775	7		
			DATE MAILED: 01/28/2004			

Please find below and/or attached an Office communication concerning this application or proceeding.

•						α			
•			Applicati	n No.	Applicant(s)				
Office Action Summary		10/086,150)	BRUCE ET AL.					
		Examiner		Art Unit					
			Jennifer C		1775				
Period f	- The MAILING DATE of this commu r Reply	nication appe	ears on the	c ver sheet with the c	orrespondence ad	ldress			
THE M - Extens after S - If the p - If NO - Failure - Any re	DRTENED STATUTORY PERIOD IN AILING DATE OF THIS COMMUNION OF THIS COMMUNION OF THIS COMMUNION OF THIS COMMUNION OF THE PROPERTY OF THE PROPERTY OF THIS COMMUNION OF THE PROPERTY OF THIS COMMUNION OF THIS COMMUNICATION OF THIS COMMUNICATION OF THIS COMMUNION OF THIS COMMUNICATION OF THI	IICATION. us of 37 CFR 1.13 umunication. (30) days, a reply statutory period wi ly will, by statute,	36(a). In no ever within the statut vill apply and will cause the applic	t, however, may a reply be timory minimum of thirty (30) days expire SIX (6) MONTHS from atton to become ABANDONE	ely filed s will be considered timel the mailing date of this c O (35 U.S.C. § 133).				
1)🖾	Responsive to communication(s) fil	ed on <u>23 Ju</u>	ine 2003.						
2a)⊠	This action is FINAL .	2b)∏ This a	action is no	n-final.					
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.								
Disposition	on of Claims								
4)🛛	Claim(s) <u>1-18 and 20-22</u> is/are pen	ding in the a	application.						
4	4a) Of the above claim(s) is/are withdrawn from consideration.								
5)🛛	Claim(s) <u>17,18,20 and 21</u> is/are allowed.								
6)⊠	Claim(s) <u>1-16</u> is/are rejected.								
7)🛛	Claim(s) <u>22</u> is/are objected to.								
8)	Claim(s) are subject to restri	iction and/or	election re	quirement.					
Application	on Papers					,			
9)□ T	he specification is objected to by the	ne Examiner	r.	·		•			
10)□ 1	he drawing(s) filed on is/are	e: a)∏ acce	epted or b)[objected to by the E	xaminer.	i.			
4	Applicant may not request that any obj	ection to the d	drawing(s) be	held in abeyance. See	37 CFR 1.85(a).	! .			
1	Replacement drawing sheet(s) includin	g the correction	on is require	d if the drawing(s) is obj	ected to. See 37 Cl	FR 1.121(d).			
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.									
Priority u	nder 35 U.S.C. §§ 119 and 120								
a) [* Se 13) [] Ad sir	Acknowledgment is made of a clair All b) Some * c) None of: 1. Certified copies of the priority 2. Certified copies of the priority 3. Copies of the certified copies application from the Internative the attached detailed Office acticknowledgment is made of a claim ace a specific reference was include CFR 1.78.	documents documents for the priori onal Bureau on for a list of	s have been s have been ity documer (PCT Rule of the certific priority und	received. received in Applications have been received 17.2(a)). ed copies not received at 35 U.S.C. § 119(e)	on No d in this National d.) (to a provisiona	I application)			
	☐ The translation of the foreign la	nguage prov	visional app	lication has been rece	eived.				
	cknowledgment is made of a claim ference was included in the first ser								
Attachment(s)								
2) Notice	of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (ation Disclosure Statement(s) (PTO-1449) I		;	I)					



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DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 includes the phrase "the form of the sintering inhibitor is a minor phase distributed throughout the thermal barrier coating material". The phrase "distributed throughout" implies that the sintering inhibitor is distributed generally in all parts of the coating, which contradicts dependent claim 9 which refers to the inhibitor being concentrated at the grain surfaces. Please clarify what embodiment is to be claimed.

Claim 14 is not clear. Is the modification with cobalt or manganese an alternative for each compound in addition to the compound itself, or is it intended that each compounds be modified?

Claim Rejections - 35 USC \$ 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8, 9, 11-13, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Subramanian (US 6,296,954). Please refer to the previous office action for the text of the rejection.

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Claim Rejections - 35 USC § 103

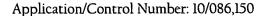
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marijnissen et al (US 5,876,860). Marijnissen teaches a thermal barrier coating ceramic structure including a superalloy substrate, a bond coat, and a ceramic topcoat. The ceramic topcoat has columnar grains, and the composition may include zirconia stabilized with yttria, lanthanum oxide, and mixtures thereon. Regarding the amounts of the components of the thermal barrier, Marijnissen gives an example in column 12, lines 60-65 of zirconia stabilized with 8 wt% yttria. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the yttria and/or lanthana in amounts known to successfully stabilize the zirconia thermal barrier coating, which would constitute a minor amount of the overall coating. Therefore, the zirconia is considered the major phase of the thermal barrier coating, and the yttria and lanthanum are considered the minor phase and are distributed throughout the zirconia.

Response to Arguments

Applicant's arguments filed June 23, 2003 have been fully considered but they are not persuasive. Applicant has amended the article claims to include a major phase and minor phase of the thermal barrier coating. Applicant argues that Marijnissen and Subramanian have no teaching of a major and minor phase of the thermal barrier coating. The rejection over Marijnissen has been changed above in response to this amendment. Regarding Subramanian, the sheath is considered a minor part of the thermal barrier coating and the zirconia base is considered the major part of the coating.



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Amendments to 09/957,843 have overcome the double patenting, 102 (e), and 102(f) rejection of record.

Applicant's amendments have overcome the rejections of claims 17-21.

Applicant's arguments and amendments have overcome the rejection over Heimberg.

Applicant's amendments have necessitated the 112(2) rejection above. The previous 112(2) rejection of claim 14 was not addressed and is reiterated above.

Allowable Subject Matter

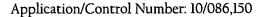
Claims 17, 18, 20, and 21 are allowed.

Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP \$ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer C McNeil whose telephone number is 703-305-0553. The examiner can normally be reached on 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Deborah Jones can be reached on 703-308-3822. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

January 2, 2004